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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LEUNG, JENNIFER A	
ART UNIT	**PAPER NUMBER**
1764	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/09/2007.

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Office Action Summary	Application No.	Applicant(s)	
	10/615,976	FUTAMI ET AL.	
	Examiner	Art Unit	
	Jennifer A. Leung	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,8 and 10-33* is/are pending in the application.

4a) Of the above claim(s) *25-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,8 and 10-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-5,7,8 and 10-33* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment submitted on December 5, 2006 has been received and carefully considered. The changes made to the Drawings are acceptable. Claims 6, 9 and 34 are cancelled. Claims 25-33 are withdrawn from consideration. Claims 1-5, 7, 8 and 10-24 are under consideration.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-5, 7, 10-17, 19, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 2003/0226806) in view of Giddings (US 4,894,146).

Regarding claims 1, 3 and 24, Young et al. (FIGs. 1-4; sections [0034-[0040]) discloses a fine channel device **5** comprising:

a fine channel **10** provided with at least two inlet ports **110**, inlet channels (i.e., ingress channels **100**) communicating with the inlet ports **110**, a confluent portion (i.e., at the point where inlet channels **100** intersect to form diffusion channel **10**) communicating with the inlet channels **100**, a branch portion (i.e., at the point where the diffusion channel **10** splits to form two outlet channels **100**) communicating with the fine channel **10**, from which at least two outlet channels (i.e., egress channels **100**) are branched, and outlet ports **110** communicating with the outlet channels **100**;

wherein the fine channel **10** is provided with a plurality of partition walls (i.e., channel structures **200**) arranged along a boundary formed by at least two kinds of fluid fed from the inlet

ports **110**; wherein the plurality of partition walls **200** are arranged with intervals **205** in a flowing direction of fluid (see FIG. 4); and wherein each partition wall **200** has a height substantially the same as the depth **D** of the fine channel **10** (see FIG. 2).

Young et al. (sections [0041]-[0042]) discloses that the diffusive transfer of a constituent through the interfacial boundary can be controlled by simply varying the dimensions, shape and/or grouping/spacing of the partition walls **200** within the fine channel **10**. Young et al., however, is silent as to the addition of a partition wall being connected to the confluent portion and another partition wall being connected to the branch portion, such that the intervals **205** between the partition walls **200** are present along the entire length of the fine channel **10**, except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel.

Giddings (FIG. 3) teaches a fine channel device wherein a partition wall (i.e., inlet splitter **15a**) is connected to the confluent portion and another partition wall (i.e., outlet splitter **15d**) is connected to the branch portion. It would have been obvious for one of ordinary skill in the art at the time the invention was made to further provide a partition wall being connected to the confluent portion and a partition wall being connected to the branch portion, such that the intervals **205** between the partition walls **200** are present along the entire length of the fine channel **10**, except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel **10** of Young et al., on the basis of suitability for the intended use, because the provision of partition walls, connected to the confluent and branch portions, improves the splitting of the plural fluid streams into their physically distinct laminae at the entrance and exit of the fine channel, as taught by Giddings.

Regarding claim 2, Young et al. (sections [0041]-[0042]) discloses that the diffusive

transfer of a constituent through the interfacial boundary can be controlled by simply varying the dimensions, shape and/or grouping/spacing of the partition walls **200** within the fine channel **10**. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the intervals between adjacent partition walls, in the vicinity of the inlet channels, to be smaller than the intervals between adjacent partition walls, in a central portion of the fine channel, in the modified apparatus of Young et al., on the basis of suitability for the intended use thereof, because where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, *In re Aller, 105 USPQ 233*.

Regarding claim 4, FIG. 4 shows that the partition walls **200** are provided at positions apart from the confluent portion and the branch portion of the device (see also FIGs. 1 and 3).

Regarding claim 5, Young et al. (sections [0041]-[0042]) discloses that the diffusive transfer of a constituent through the interfacial boundary can be controlled by simply varying the dimensions, shape and/or grouping/spacing of the partition walls **200** within the fine channel **10**. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the intervals between adjacent partition walls, in the vicinity of the outlet channels, to be smaller than the intervals between adjacent partition walls, in a central portion of the fine channel, in the modified apparatus of Young et al., on the basis of suitability for the intended use thereof, because where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, *In re Aller, 105 USPQ 233*.

Regarding claim 7, Young et al. (sections [0041]-[0042]) discloses that the diffusive

transfer of a constituent through the interfacial boundary can be controlled by simply varying the dimensions, shape and/or grouping/spacing of the partition walls **200** within the fine channel **10**. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the maximum length of a partition wall **200** in a flowing direction of fluid to be less than any distance **205** between adjacent partition walls **200** in the flowing direction of fluid in the modified apparatus of Young et al., on the basis of suitability for the intended use thereof, because where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, *In re Aller, 105 USPQ 233.*

Regarding claim 10, in the vicinity of the inlet channels **100** and/or the outlet channels **100**, at least two partition walls **200** are connected continuously (i.e., via a membrane **300**) in a flowing direction of fluid (see FIGs. 4,11).

Regarding claim 11, a plurality of projections (i.e., channel structures **400**) are formed at the inner wall of the fine channel partitioned by partition walls (see FIG. 12).

Regarding claim 12, the apparatus of Young et al. structurally meets the claims because the flow direction of the fluids is considered intended use. In any event, Young et al. further discloses that the inlet ports **110** for feeding fluid, the inlet channels **100** communicating with the inlet ports **110**, the outlet channels **100**, and the outlet ports **110** communicating with the outlet channels **100** (FIG. 1) are arranged so that the flowing direction of either one of at least two kinds of fluid fed in the fine channel **10** is opposite to the flowing direction of the other of said at least two kinds of fluid fed adjacently in the fine channel **10** (i.e., counter-current flow; see FIG. 9; also sections [0043]-[0045]).

Regarding claims 13 and 14, as best understood, the inner wall at one side of the fine channel **10** partitioned by partition walls **200** has amicability to hydrophilic/hydrophobic properties to a kind of fluid fed into the fine channel, and the hydrophilic properties of a material for the inner wall at one side of the fine channel **10** partitioned by partition walls **200** may be different from hydrophilic properties of the fluid fed into the fine channel (i.e., by preferentially making the exposed surfaces of the channels and channel structures hydrophobic or hydrophilic; see section [0049]).

Regarding claims 15 and 16, a film (i.e., a polymer membrane **300**; FIG. 11 and section [0047]) having fine pores of a diameter smaller than any distance **205** between adjacent partition walls **200** is provided between adjacent partition walls **200** in a flowing direction of fluid.

Regarding claim 17, a metallic film may be disposed in the entire or a part of the inner surface of the fine channel and/or the wall surface of the partition walls (i.e., a final passivation layer **440** such as sputtered or evaporated metal; section [0052]).

Regarding claims 19 and 20, Young et al. further discloses the provision of, "appropriate fluid connections (not shown) for the attachment of a fluid conducting mechanism, such as a capillary or reservoir, to the device," (section [0038]). Although Young et al. is silent as to the instantly claimed configuration of a pump, circulating channel and reservoir tank, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the device of Young et al. as instantly claimed, because the Examiner takes Official Notice that the provision of such fluid conducting mechanisms, on the basis of suitability for the intended use, is within the level of ordinary skill in the art.

3. Claims 8, 18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 2003/0226806) in view of Giddings (US 4,894,146), as applied to claims 1 and 17 above, and further in view of Christel et al. (US 6,368,871).

Regarding claim 8, Young et al. is silent as to a portion of the fine channel **10** having a shape other than a straight shape, with the partition wall **200** in said portion extending from the vicinity of a portion originating a non-straight portion of fine channel **10** to the vicinity of a portion ending the non-straight portion of fine channel **10**. Christel et al. teaches a fine channel device comprising a portion of the fine channel **110** having a shape other than a straight shape, with the partition wall **111** in said portion extending from the vicinity of a portion originating a non-straight portion of fine channel to the vicinity of a portion ending the non-straight portion of fine channel (i.e., a plurality of U-shaped fine channel portions, each containing a U-shaped micro-column or island; see bottom image of FIGs. 1g). It would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the fine channel **10** in the apparatus of Young et al. as instantly claimed, on the basis of suitability for the intended use, because the configuration of a non-straight portion containing a partition wall in addition to a straight portion allows for the formation of a fine channel device having a great fine channel length on a given area of substrate.

Regarding claim 18, Young et al. is silent as to the provision of a current supply means and/or a voltage supply means for the metallic film. Christel et al. teaches the provision of a current supply means and/or a voltage supply means (i.e., via an AC or DC voltage; see column 8, line 14 to column 9, line 28). It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a current supply means and/or a voltage supply

means for the metallic film in the device of Young et al., on the basis of suitability for the intended use thereof, because the current supply and/or voltage supply means further aids in the separation of molecules in the device via a change in polarity, as taught by Christel et al.

Regarding claims 21 and 22, Young et al. is silent as to the fine channel device further comprising a means for supplying energy to fluid flowing through the fine channel **10**. Christel teaches the provision of means, such as a heating device (column 9, lines 29-37), for supplying energy to fluid flowing through the fine channel. It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a means for supplying energy to the apparatus of Young et al., because the means (i.e., a heating device) would provide additional functional capabilities to the apparatus, as taught by Christel (see column 9, lines 31-35).

Regarding claim 23, the fine channel **10** of Young et al. is formed two-dimensionally or three-dimensionally (e.g., by etching; see sections [0051]). Furthermore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure a plurality of fine channels **10** in the device of Young et al., on the basis of suitability for the intended use, because a plurality of fine channels allows for an increase in the duration of diffusive mixing, as evidenced by Christel et al. (see FIG. 4; column 4, lines 23-28). In addition, it has been held that duplication of part was held to have been obvious. *St. Regis Paper Co. v. Beemis Co. Inc.* 193 USPQ 8, 11 (1977); *In re Harza* 124 USPQ 378 (CCPA 1960).

4. Claims 1, 3, 4, 7, 8, 12-14, 17-19 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christel et al. (US 6,368,871) in view of Giddings (US 4,894,146).

Regarding claims 1, 3 and 24, Christel et al. discloses a fine channel device (see FIGs. 3-5, 1f, 1g; column 2, line 56 to column 3, line 10) comprising:

a fine channel (i.e., contact or interdiffusion region **110**) provided with at least two inlet ports; inlet channels (i.e., deep channels **101** and **102**) communicating with the inlet ports; a confluent portion (i.e., the point of intersection of channels **101** and **102**) communicating with the inlet channels; a branch portion (i.e., at the point where channel **110** splits into channels **103** and **104**) communicating with the fine channel **110**, from which at least two outlet channels **103** and **104** are branched; and outlet ports communicating with the outlet channels **103** and **104**;

wherein the fine channel **110** is provided with a plurality of partition walls (i.e., micro-columns **111**; see also column 7, lines 40-54) arranged along a boundary formed by at least two kinds of fluid fed from the inlet ports; wherein the plurality of partition walls **111** are arranged with intervals in a flowing direction of fluid (see FIGs. 5, 1f and 1g); and wherein, as best shown in FIG. 1f, the height of the partition walls **111** is substantially the same as the depth of the fine channel **110** (see also column 7, lines 40-54).

Christel et al., however, is silent as to the addition of a partition wall being connected to the confluent portion and another partition wall being connected to the branch portion, such that the intervals between the partition walls **111** are present along the entire length of the fine channel **110**, except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel.

Giddings (FIG. 3) teaches a fine channel device wherein a partition wall (i.e., inlet splitter **15a**) is connected to the confluent portion and another partition wall (i.e., outlet splitter **15d**) is connected to the branch portion. It would have been obvious for one of ordinary skill in the art at the time the invention was made to further provide a partition wall being connected to the confluent portion and a partition wall being connected to the branch portion, such that the

intervals between the partition walls **111** are present along the entire length of the fine channel **110**, except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel **110** of Christel et al., on the basis of suitability for the intended use, because the provision of partition walls, connected to the confluent and branch portions, improves the splitting of the plural fluid streams into their physically distinct laminae at the entrance and exit of the fine channel, as taught by Giddings.

Regarding claim 4, partition walls **111** are provided at positions apart from the confluent portion and the branch portion (see FIG. 5).

Regarding claim 7, as illustrated in FIG. 5, it appears that the maximum length of a partition wall (i.e., in this case, the diameter of the structure **111**) in the flowing direction of fluid is less than any distance between adjacent partition walls **111** in the flowing direction of the fluid. Although the dimensions of the partition walls **111** and the spacing between partition walls **111** is not specifically stated, Christel et al. further discloses,

> "The microcolumns may be of any shape or size so as to provide a high surface area array. The individual columns are preferably round, square, or rectangular. The height of any individual column may vary and can be of any size, preferably ranging from about 20 to about 1000 microns. It is generally desirable to use high aspect ratio microcolumns (ratio of height to width and/or diameter), such as 2:1, preferably 10:1, more preferably 20:1. The columns may be uniform in size and shape, or individually eccentric..." (column 7, lines 40-48).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the partition walls **111** in the apparatus of Christel et al. as instantly recited, on the basis of suitability for the intended use thereof, because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the

optimum or workable ranges involves only routine skill in the art, *In re Aller, 105 USPQ 233.*

Regarding claim 8, a portion of the fine channel **110** has a shape other than a straight shape, and the partition wall **111** in said portion extends from the vicinity of a portion originating a non-straight portion of fine channel to the vicinity of a portion ending the non-straight portion of fine channel (i.e., a plurality of U-shaped fine channel portions, each containing a U-shaped micro-column or island; see bottom image of FIGs. 1g).

Regarding claim 12, the device of Christel et al. structurally meets the claim because the direction of fluid flow is considered intended use.

Regarding claims 13 and 14, as best understood, the inner wall has amicability to hydrophilic/hydrophobic properties to a kind of fluid fed into the fine channel, wherein the hydrophilic properties of a material are different from hydrophilic properties of the fluid fed into the fine channel (see column 7, lines 1-9 and 18-21; column 6, lines 14-20).

Regarding claims 17, 18 and 19, Christel et al. discloses the provision of a current supply means and/or a voltage supply means (i.e., an AC or DC voltage; column 8, line 14 to column 9, line 15) for an underlying conductor disposed in the entire or a part of the inner surface of the fine channel and/or the wall surface of the partition walls. Christel et al., however, is silent as to the underlying conductor comprising a metallic film. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select a metallic film for the underlying conductor in the device of Christel et al., on the basis of suitability for the intended use thereof, because the Examiner takes Official Notice that the use of metallic films as electrically conductive materials is well known in the art.

Regarding claims 21 and 22, Christel et al. further discloses means for supplying energy

to fluid flowing the fine channel (i.e., a heating device; see column 9, lines 19-37).

Regarding claim 23, a plurality of fine channels **110** (FIG. 5) are formed two-dimensionally or three dimensionally (e.g., by etching on silicon, etc.; see column 5, line 44 to column 6, line 26).

Response to Arguments

5. Applicant's arguments filed December 5, 2006 have been fully considered but they are not persuasive.

Comments regarding the combination of Young et al. and Giddings

Applicants (beginning at page 14, third paragraph) argue,

> "... The Official Action cites physical splitter (15a) as the partition wall located in the vicinity of a confluent portion, and physical splitter (15d) as the partition wall located in the vicinity of the branch portion. However, the Giddings reference does not disclose or even suggest a plurality of such walls spaced apart at intervals in a flowing direction fluid. Thus, one of ordinary skill in the art would not have looked at splitters (15a, 15d) as being equated with the channel structures (200) of the Young et al. reference, or as being used to modify the teachings of the channel structures (200) of the Young et al. reference. The Giddings reference clearly does not teach or suggest intervals (plural term) between the splitters (15a, 15d) are present along the entire length of the channel except in the vicinity of the confluent portion and the vicinity of the branch portion of the channel. No such intervals are disclose or suggested, and thus providing a portion of portions where no intervals are present would not have been gleaned by one of ordinary skill in the art at the time the present invention, absent hindsight reconstruction of the present invention."

The Examiner respectfully disagrees. The claimed feature of "a plurality of partition walls spaced apart at intervals in a flowing direction of fluid" is disclosed by the primary reference to

Young (i.e., partition walls **200**, with intervals **205**). The secondary reference to Giddings was merely relied upon for its teaching of partition walls (i.e., inlet splitter **15a** and outlet splitter **15d**; FIG. 3) that are connected to the confluent portion and the branch portion, respectively, of a fine channel in a fine channel device. Based on the teachings of Giddings, one of ordinary skill in the art at the time the invention was made would have been motivated to provided a partition wall connected to each of the confluent and branch portions in the device of Young et al., in addition to the plurality of partition walls **200** and intervals **205** already present therein, because the provision of partition walls, connected to the confluent and branch portions, further improves the splitting of the plural fluid streams into their physically distinct laminae at the entrance and exit of the fine channel, as taught by Giddings.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Comments regarding the combination of Christel et al. and Giddings

Applicants (beginning at page 15, second paragraph) argue,

"... The Christel et al. reference clearly does not disclose intervals between the partition walls that are present along the entire length of the fine channel except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel as defined in Claim 1. The Official Action cites the Giddings reference to cure the above noted deficiency in the teaching of the Christel et al. reference. For the same reasons noted above, the Giddings reference fails to supplement these deficiencies, and one of ordinary skill in the art would not have been motivated to combine these references to arrive at the present invention absent hindsight considerations.

The Examiner respectfully disagrees. The claimed feature of "a plurality of partition walls spaced apart at intervals in a flowing direction of fluid" is disclosed by the primary reference to Christel et al. (i.e., micro-columns **111** with intervals therebetween). The secondary reference to Giddings was merely relied upon for its teaching of partition walls (i.e., inlet splitter **15a** and outlet splitter **15d**; FIG. 3) that are connected to the confluent portion and the branch portion, respectively, of a fine channel in a fine channel device. Based on the teachings of Giddings, one of ordinary skill in the art at the time the invention was made would have been motivated to provided a partition wall connected to each of the confluent and branch portions in the device of Christel et al., in addition to the plurality of partition walls **111** and intervals already present therein, because the provision of partition walls, connected to the confluent and branch portions, further improves the splitting of the plural fluid streams into their physically distinct laminae at the entrance and exit of the fine channel, as taught by Giddings.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed

invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413; 208 USPQ 871 (CCPA 1981).

Furthermore, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

* * *

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 9:30 am - 5:30 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer A. Leung
February 22, 2007

Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700